REMARKS

Claim Objections

The objection to claim 18 is now moot in view of the cancellation of claim 18. Removal of the objection is kindly requested.

Claim Rejections - 35 USC § 112

The rejection of claims 13, 15, and 25 is respectfully rendered moot in view of the cancellation of these claims.

New claims 29-32 are thought to be in compliance with 35 USC § 112.

It is respectfully asked that the rejection be withdrawn.

Claim Rejections - 35 USC § 102

Claims 1-28 have been cancelled in favor of new claims 29-32, which limit the claimed apparatus in particular with respect to the gripper. New claims 29-32 are thought to be novel over the prior art of record for reasons given below.

It is respectfully urged that none of the cited references teaches or suggests a gripper mounted at the free end of a robot arm for releasably grasping an object holder for transport of the object holder into and out of a plurality of processing stations, "wherein the gripper is actuable to grasp the object holder by lowering the free end of the robot arm to cause the gripper to engage the object holder while the object holder resides in one of the processing stations; and wherein the gripper is actuable to release the object holder by lowering the free end of the robot arm beyond a position at which the object holder resides in and is supported by one of the processing stations." As can be seen in Figs 6a of the present application, a long arm of switching cross 22 engages an inside corner of the actuation member 21 to keep slot 19 open while the gripper is lowered onto an object holder such that hook 18 of the object holder is received in slot 19 of the gripper. When the hook 18 of the object holder engages the switching cross and the gripper is lowered further, the switching cross rotates as depicted in Fig. 6b. As the switching cross rotates, the short arm of the switching cross occupies the inside corner of actuation member 21 so that the actuation member is allowed to pivot to a closure position as shown in Fig. 6c. The gripper is then ready to lift and move the object holder to a different processing station. As the gripper is lowered to set the object holder in the processing station, the object holder's hooks 18 become supported by the processing station such that further lowering movement of the gripper causes further rotation switching cross 22 as its short arm engages hook 18, as depicted in Fig. 6d. This brings the switching cross 22 back toward the rotational position shown in Fig. 6a wherein the actuation member 21 is held in an open position

by the long arm of the switching cross, and the gripper can be lifted out to retrieve another object holder.

Ivanov et al. (SU 1191256 A) discloses a gripper at the free end of a robot arm, wherein the gripper jaws 6 are actuated not by engagement with machine chuck 30, but by carriage 11 tensioning cable 12 connected to the jaws.

Takeuchi (US 4738824) discloses a gripper for object holders that is controlled by a solenoid 74 (Fig. 8) and another gripper controlled by a motor 108 (Fig. 12). Neither is actuable by engagement with the object holder.

Takahashi et al. (US 6080363) describes a handle unit 15 having arms 19 pivotally connected to the object holder 14 (see Fig. 2). The handle unit has a support beam 20 that is placed onto a hanger arm 24 by a transport device. There is no teaching of a closable gripper mechanism.

Laboch et al. (FR 2617077) does not describe grippers 16 and 18 in detail.

Cohen et al. (US 6293750 B1) teaches a pneumatically actuated gripper 104 for a robotic arm. See column 10, lines 32-41.

Steinhilber (US 5046880) relates to telescoping limitation in original claim 11, and is not relevant to the patentability of new claims 29-32.

Bucher et al. (US 4830565) teaches a pneumatically actuated gripper. See column 5, lines 46-68, and Figs. 4 and 5.

Heid et al. (US 5895628) discloses an apparatus wherein electromagnets 15a, 15b are switch on and off to grab and release object holders 13a, 13b.

Kalra et al. (US 5948359) describes a an automated staining apparatus wherein an arm movable in three dimensions has a reagent tip head for carrying and dispensing reagent on a specimen, and not a gripper for grasping an object holder.

Marteau D'Autry (US 5417123) discloses an X-Y-Z positioning apparatus for a sampling needle 5.

From the foregoing, it is clear that none of the references anticipate the invention as defined in claims 29-32.

Claim Rejections - 35 USC § 103

New claims 29-32 are also thought to be nonobvious over the cited references because there is no reference or combination of references that teaches or suggests the claimed gripper.

Conclusion

For the reasons set forth above, allowance of new claims 29-32 is sought and favorable reconsideration of the present application is respectfully requested. If the Examiner has any questions, or the attorneys for applicant can assist in any way, the undersigned may be contacted at the number provided below.

Respectfully submitted,

HODGSON RUSS LLP

By _____
George L. Snyder, Jr.
Reg. No. 37,729

One M&T Plaza, Suite 2000
Buffalo, New York 14203-2391
(716) 856-4000
DATED: August 26, 2004

BFLODOCS 957217v1 (K$LD01!.DOC)